COMPSYS 21 Version 2.8/06

COMPSYS 21 Version 2.8/06 was released on April 20, 2004 and replaces version 2.8/01. COMPSYS 21 includes the following enhancements:

Enhancements

- COMPSYS 21 has been enhanced to allow the user to select different units for the input/output distances. In addition to the units in nautical miles, the user can select the distance in statue miles, meters, feet (U.S. standard) and feet (International standard). All computations within COMPSYS 21 are calculated in meters.
  - U.S. Standard Foot: 1 meter=3.28083 ft
  - International Standard Foot: 1 meter=3.28083989 ft

- All computations are verified with a forward and inverse calculation. This has always been the standard process for all geodetic calculations.
- The COMPSYS 21 windows have been enhanced to display all bearings, azimuths and distances. For instance, the segment/segment calculation previously only showed the result while the printout showed all azimuths, bearings and distances between stations.
- The COMPSYS 21 windows for computations such as segment/segment will indicate how far the segments were extended to find an intersection. This information will also be included when the user wants to print or save the output to a file.
- The user can store stations for additional calculations. This Store GP option can be used to store stations in a file for future computations.   A remark field is available within this window for a user-entered note.
- The default ellipsoid for all computations within COMPSYS 21 is the Geodetic Reference System of 1980 (GRS80). The ellipsoids pull down for ellipsoids has been modified to GRS80/WGS84. The World Geodetic System of 1984 for all practical purposes is identical to GRS80.   One of the constants is off by a tenth of millimeter.

Parameter	Notation	Units	GRS80	WGS84
Semimajor Axis	a	m	6378137	6378137
Semiminor Axis	b	m	6356752.3141	6356752.3142
Flattening	f		0.00335281068118	0.00335281066474

*Difference between GRS80 and WGS84 indicated in red text.

- A minimize button has been added to the input calculation windows.
- The user can assign a tag to the result.

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